Contracts to Be Let

Bids received until June 8, 1915.

Sheet Asphalt Paving

Rahway, N. J.

Sealed proposals will be received by the Common Council of the City of Rahway, N. J., Tuesday evening, June 8th, at 8 o'clock, at the City Hall, for the paving of Milton avenue, from the Pennsylvania Railroad to St. Georges avenue, with sheet asphalt pavement. Approximate amount of work to be done:

Excavate present surface of street to subgrade.
Lay 10,270 sq.yds. of sheet asphalt pavement on 6 inch concrete foundation.
Reset 5311 lin.feet of curb in concrete.

A certified check for $1000.00 to accompany each bid, payable to "The Mayor and Common Council of the City of Rahway."

The Common Council reserves the right to reject any or all bids.

FRANKLIN MARSH, City Engineer.

Rahway, N. J., May 24th, 1915.

Bids received until June 7, 1915.

Proposals for Shore Protection Works

Stone Harbor, N. J., May 22nd, 1915.

Sealed proposals indorsed "Bids for Shore Protection Works" will be received by the Borough Council of Stone Harbor until 8 o'clock on the evening of the seventh day of June, 1915, the time set for the Council meeting at the Council Chamber (School House) at Stone Harbor, N. J., and the public opening and scheduling of Proposals.

The work covers the construction of about 8250 ft. of timber bulkhead with brush and stone apron, about 4000 ft. of pile, brush and stone jetties, about 220,000 cu.yds. sand fill, about 17,000 cu.yds. of gravel cover fill, and other appurtenant work; time completion, 200 working days. Proposal blanks, plans and specifications are on file at the office of the Borough Clerk, and may be obtained from the Engineer in charge of the work, Mr. Harry E. Weir, Wildwood, N. J., upon personal or written application with deposit of ($25.00) drawn to his order; deposit refunded on return of specifications, etc. Certified check or a "Bidders Bond" in the amount of Five Thousand Dollars required with bid as security for acceptance of contract. Limit of appropriation about one hundred and seventy thousand dollars. The right to reject any or all bids reserved.

LEO F. McCRAVEN, Borough Clerk.

Bids received until June 2, 1915.

Refrigeration Equipment

Beacon, N. Y.

Sealed proposals for Refrigeration Equipment for Storehouse at Matteawan State Hospital, Beacon, N. Y., will be received by Hon. John B. Riley, Superintendent of Prisons, Capitol, Albany, N. Y., until 2:30 P.M. on Wednesday, June 2, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent. (5%) of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 1949. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Matteawan State Hospital, Beacon, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

Bids received until June 8, 1915.

Sewage Disposal Plant and Appurtenances

Beaver Falls, Pa.

Sealed bids will be received by the Beaver Falls City Council for the construction of a sewage disposal plant, between the hours of 7:30 P.M. and 8:30 P.M. standard eastern time, June 8, 1915, and the bids will immediately thereafter be publicly opened and read.

The work consists of:

Part 1. Four Imhoff Tanks and Pump House.
Part 2. One Luiquid Chlorine Sterilizing Outfit.
Part 3. One Oil Engine, belt driven Centrifugal Pump.
Part 4. Sludge Drying Beds.
Part 5. Necessary Piping.

Plans and specifications can be secured from the engineer, Leo Hudson, 1210 House Building, Pittsburgh, Pa., upon a deposit of five ($5.00) dollars, said deposit being refunded to the bidder upon the return of said plans and specifications by June 15, 1915, in good condition.

All intending bidders will be required to furnish satisfactory evidences of his or their ability to complete the contract satisfactorily and all intending bidders will be required to show evidences of having satisfactorily performed such of closely similar work in the past.

Bidders may bid upon any part or parts of the contract as listed above.

Each bid must contain a certified check for the sum of $1000.00 guaranteeing the good faith of the bidder in signing the contract should said contract be awarded him.

All bids must be on the proposal blank provided and any change or changes made by the bidder in the printed matter of the proposal blanks will be ignored and the bid considered in terms of the conditions set forth.

All bids must be sealed and handed in person to Dr. W. F. Rayle, during the hour between 7:30 P.M. and 8:30 P.M. on June 8, 1915.

The City Council reserves the right to reject any or all bids or to accept or reject any part or parts of any bid.

JAS. E. McCLURE, Mayor.
W. W. PIPER, Supt., Public Improvements.
DR. W. F. RAYLE, Secy., to Council.

LEO HUDSON, Engineer,
1210 House Building, Pittsburgh, Pa.

Bids received until June 14, 1915.

Concrete Pavement

Sault Ste. Marie, Mich.

Sealed proposals will be received by the Board of Public Works, Sault Ste. Marie, Mich., not later than 4 P.M., Monday, June 14th, 1915, and then publicly opened, for the construction, in accordance with the plans and specifications on file at the office of Ross A. Frederick, City Engineer, of a bituminous coated concrete pavement on Portage Avenue between Bingham Avenue and the Portage Avenue Bridge, consisting of approximately 12,000 sq.yds. of pavement with the adjacent curbs and approaches.

All bids are to be accompanied by a certified check in the amount of 5% of the pavement bid, which check of the successful contractor will be retained by the Board until after the execution of the contract.

The right is reserved to reject any or all bids.

BOARD OF PUBLIC WORKS.
A. J. EATON, Secy.

OFFICE OF THE COMMISSIONERS, D. C., May 25, 1915.—SEALED PROPOSALS will be received at this office, Room 509 District Building, until 2 o'clock P.M., on June 3, 1915, for the construction of Sewers in the District of Columbia, involving the construction of about 600 linear feet of trunk sewer, 6′ 0″ diameter. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

Bids received until June 1, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Tuesday, the 1st day of June, 1915, for the repair of highways in the following counties:

Albany (one contract—surface treatment); Chenango (two contracts—surface treatment); Clinton (one contract—surface treatment); Cortland (one contract—surface treatment); Delaware (one contract—surface treatment); Erie (one contract—surface treatment); Essex (two contracts—surface treatment); Fulton (one contract—surface treatment); Herkimer (one contract—surface treatment); Jefferson (one contract—surface treatment); Madison (one contract—surface treatment); Monroe (one contract—surface treatment); Montgomery (two contracts—surface treatment); Orange (one contract—surface treatment, one contract—resurfacing); Otsego (one contract—surface treatment); Rensselaer (two contracts—surface treatment); St. Lawrence (one contract—surface treatment, one contract—resurfacing); Saratoga (one contract—surface treatment); Schenectady (one contract—surface treatment); Schoharie (one contract—surface treatment); Steuben (one contract—resurfacing); Sullivan (one contract—surface treatment); Warren (one contract—resurfacing and surface treatment); Washington (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Bids received until June 9, 1915.

Electric Traveling Cranes, etc.

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200, New Orleans Court Building, until June 9th, at 8 o'clock P.M., and then be publicly opened, for the furnishing and erecting of fifteen (15) or more Electric Traveling Cranes, two (2) Transfer Cranes, and one Crane Transfer and Elevator, for the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River between Valence and Soniat Streets.

Deposit required with proposal $3,000.

Deposit required with contract $20,000.

On and after May 22nd, plans and specifications will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., where full sets will be furnished to prospective bidders on a deposit of $25.000, which will be refunded to bidders who submit proposals. $15.00 will be refunded to bidders who do not submit proposals.

The right is reserved to reject any and all bids.

ERNEST M. LOEB, President.

Bids received until June 7, 1915.

Grading and Masonry for a Portion of Section 2, New York Connecting Railroad

Philadelphia, Pa., May 14th, 1915.

Sealed proposals are invited for the construction of the grading and masonry of a portion of Section 2 of the New York Connecting Railroad, extending from a point near Bowery Bay Road to the south side of Fremont Street, in the Borough of Queens, City of New York, a distance of about 4.21 miles. Plans, specifications, form of contract, proposal blanks and instructions to bidders may be had by addressing A. C. SHAND, Chief Engineer, Southern Division, The New York Connecting Railroad Company, Broad Street Station, Philadelphia, Pa.

Bids received until June 14, 1915.

Continuation of Construction of Storage Dam

Lock Haven, Pa., May 18, 1915.

Sealed proposals, endorsed "Bids for the Construction of a Portion of Storage Dam No. 1 on McElhattan Run, Wayne Township, Clinton County, Pa.," and addressed to Allen Sterner, Superintendent of Parks and Public Property, Lock Haven, Pa., will be received until 1 o'clock P.M., June 14, 1915, at which time the bids shall be publicly opened and read by the City Council in the City Council Chamber, and the contract awarded by said City Council at a future meeting, unless all bids are rejected. The work for which said proposals shall be made is a continuation of the construction of a Storage Dam, already begun, and embraces the construction of a portion of the dam only, and will require the following approximate quantities:

Concrete (plain and rubble)..about		560	cubic yards
Earth excavation.....	"	10560	" "
Trench "	"	700	" "
Riprap	"	150	square yards
Earth Fill.....	"	150	cubic yards

1 24 inch double disc Gate Valve.
Removing of Stone Crusher Plant, etc.

Specifications, instructions to bidders, blank forms upon which bids must be made, and full plans for the proposed work will be furnished upon application to Allen Sterner, Superintendent of Parks and Public Property, Lock Haven, Pa., upon the deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before June 14, 1915. The City Council reserve to themselves the right to reject any or all bids, as they may deem best for the interest of the City.

ALLEN STERNER,
Supt. Parks & Public Property,
Lock Haven, Pa.

H. P. SHOEMAKER, City Engineer.

Bids received until June 4, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m. on Friday, the 4th day of June, 1915, for the construction and repair of highways in the following counties:

Albany, 3 highways (3.41; 5.76; 4.20), 2 contracts (resurfacing); Cattaraugus, 1 highway (4.29); Cayuga, 1 contract (broken stone); Chemung, 1 highway (8.98); Dutchess, 1 contract (surface treatment); Essex, 2 highways (3.31; 0.52); Jefferson, 1 highway (4.60); Monroe, 2 highways (8.39; 1.51); Niagara, 1 contract (broken stone); Oneida, 1 highway (7.76), 2 contracts (resurfacing), 1 contract (surface treatment); Orange, 1 highway (6.27); Orleans, 3 highways (2.87; 7.46; 0.17); Oswego, 2 highways (7.75; 5.12), 1 contract (resurfacing); Rensselaer, 1 contract (surface treatment); St. Lawrence, 1 highway (5.66); Schenectady, 1 contract (resurfacing); Schuyler, 2 highways (8.98; 7.60); Seneca, 1 contract (broken stone); Tompkins, 1 highway (7.60); Wayne, 1 contract (broken stone).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the roads are to be constructed or repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders' in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 21, 1915.—Sealed proposals will be opened in this office at 3 p.m., July 2, 1915, for the construction complete (including mechanical equipment and approaches) of a two-story and basement stone and brick-faced building of 17,000 square feet ground area, fireproof construction, composition and copper roof, for the United States post office and courthouse at Charlotte, N. C. Drawings and specifications may be obtained from the custodian of the site at Charlotte, N. C., or at this office, in the discretion of the Acting Supervising Architect. JAS. A. WETMORE, Acting Superv. Architect.

Bids received until June 2, 1915.

Contract 9—Nepaug Reservoir East Dike

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of the East Dike, Nepaug Reservoir, in the Town of Canton, Conn., will be received at the office of the Board, City Hall, Hartford, until 3:00 p.m., Wednesday, June 2, 1915.

This contract comprises the construction of an earth dam 25 feet high and 600 feet long, with concrete core wall, and will require about 1600 cubic yards of trench excavation, 32,000 cubic yards of earth embankment and 1800 cubic yards of concrete masonry.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before July 2, 1915. Checks should be made to the order of the Board of Water Commissioners. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2500 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $25,000.

The right is reserved to reject any or all bids.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.
CALEB MILLS SAVILLE,
Chief Engineer.

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U. S. ENGINEER OFFICE, Louisville, Ky., May 4, 1915. Sealed proposals for furnishing and erecting one Mitering Guard Gate of two leaves, for Lock No. 41, Ohio River, will be received here until 12 noon, Central time, June 4, 1915, and then publicly opened. Information on application. J. C. OAKES, Maj., Engrs.

U. S. ENGINEER OFFICE, Room 802, Army Building, 39 Whitehall Street, New York City, May 14, 1915.—Sealed Proposals for furnishing and placing rip-rap stone for repair and enlargement of sea wall at south end of U. S. lands at Sandy Hook, N. J., will be received at this office until 12 M., May 29, 1915, and then publicly opened. Information on application. FREDERIC V. ABBOT, Colonel, Engineers.

FORT SILL, OKLA., May 15, 1915.—Sealed proposals in triplicate will be received here until 11 A.M., June 15, 1915, for constructing Quartermaster Corps Barrack, double set engineer's quarters magazine, additions to 4 barrack buildings, 5 stables, repairing 9 double officers quarters, 3 barrack buildings, band barrack, shops and coal houses. Information on application. CONSTRUCTING QUARTERMASTER.

FORT HUACHUCA, Ariz., May 8, 1915.—Sealed proposals, in triplicate, will be received here until 1 P.M., June 9, 1915, and then opened, for furnishing all materials, machinery and labor required in constructing complete an electric light and refrigerating plant and installing interior and exterior wiring system. $10 deposit required for plans and specifications. For information address CONSTRG. QUARTERMASTER.

FORT SAM HOUSTON, TEX., May 11, 1915.—Sealed proposals, in triplicate, will be received here until 11 A.M., June 4, 1915, for constructing Commanding officers quarters, 2 six-set bachelor officers quarters, barrack, administration building; barrack and stable for pack train. Information upon application to CONSTRUCTING QUARTERMASTER.

U. S. ENGINEER OFFICE, Savannah, Ga., May 21, 1915.—Sealed proposals for repairs to bank protection of Savannah River at Augusta, Ga., will be received at this office until 12 noon (Eastern Standard Time), June 21, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

U. S. ENGINEER OFFICE, Wheeling, W. Va., May 3, 1915.—Sealed proposals for furnishing and delivering water turbines, air compressors, valve jacks, and gate winches, etc., for Dams Nos. 15 and 19, Ohio River, will be received at this office until 11 a.m. (Eastern time), June 2, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

PROPOSALS FOR DREDGING.—U. S. ENGINEER OFFICE, 815 Witherspoon Bldg., Philadelphia, Pa.—Sealed proposals will be received here until 12 NOON, JUNE 21, 1915, and then opened, FOR DREDGING IN DELAWARE RIVER, opposite Port Richmond coal piers, Philadelphia harbor. FURTHER information on application.

PROPOSALS FOR LEVEE WORK—Office of the Secretary, Mississippi River Commission, 1311 International Life Building, St. Louis, Mo.—Sealed proposals will be received here until 11 a.m., June 17, 1915, for constructing about 175,000 cubic yards of earthwork in the East Side Levee and Sanitary District, Ill. Further information on application.

Bids received until June 1, 1915.

Sewer Construction

DEPARTMENT OF WORKS

Oswego, N. Y., May 18th, 1915.

Sealed proposals will be received by the Department of Works up to 2 P.M. June 1st, 1915, and then opened, for the following sewer construction:

505	Ft.	36"	Vit.	Tile,	Vit.	Seg.	Block	or	Concrete	Sewer
240	"	33"	"	"	"	"	"	"	"	"
294	"	30"	"	"	"	"	"	"	"	"
306	"	24"	"	"	"	"	"	"	"	"
150	"	22"	"	"	"	"	"	"	"	"
294	"	20"	"	"	"	"	"	"	"	"
50	"	18"	"							
503	"	15"	"							
778	"	12"	"							
1947	"	10"	"							
10448	"	8"	"							
497	Y-Branches									
35	Manholes									
14	Flush Ends									

The work will be divided into five contracts and the proposals submitted therefor must be accompanied by a certified check for 10% of the amount of each proposal.

Plans and specifications and any further information desired on the above work can be obtained at the office of this Department on payment of $5.00.

The Department of Works reserves the right to reject any or all bids.

CHARLES W. LINSLEY,
Commissioner of Works.

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Bids received until June 9, 1915.

Return Tubular Boilers, etc.

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200, New Orleans Court Building, until June 9th, at 8 o'clock P.M., and then be publicly opened for furnishing and installing three horizontal return tubular boilers, with settings, breeching and appurtenances to be installed in the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River between Valence and Soniat Streets.

Deposit required with proposal $500.00.

Bond required with contract $3,000.00.

On and after May 22nd, plans and specifications will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., where full sets will be furnished to prospective bidders on a deposit of $25.00, which will be refunded to bidders submitting proposals. To bidders who do not submit proposals, $15.00 will be refunded.

The right is reserved to reject any and all bids.

ERNEST M. LOEB, President.

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Bids received until June 7, 1915.

Paving

Blue Earth, Minn.

Bids will be received until 8 P.M., June 7, 1915, for paving work to cost about $50,000. Bids are asked on brick, creosoted blocks, asphaltic concrete, sheet asphalt, concrete, etc.

Plans and specifications are on file at the office of the City Clerk, Blue Earth, and Engineer,

E. T. ABBOTT,
425 Kasota Block, Minneapolis, Minn.

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Contractors

BIDS OPENED JUNE 15, 1915,

for the construction of Section No. 1 of Route No. 29, being a part of the Eastern Parkway Rapid Transit Railroad. (Nostrand Ave. branch.)

A two-track underground railroad in the Borough of Brooklyn, beginning at a point under Eastern Parkway about 192 ft. west of Nostrand Ave. and running thence under Eastern Parkway and Nostrand Ave. to a point about 220 ft. south of Church Ave.

Write or call concerning form of contract, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,
154 Nassau St., New York City.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 25, 1915, and then opened, for furnishing and placing riprap and repairing sea wall at Governors Island, N. Y. Further information on application.

PROPOSALS FOR STRUCTURAL METAL—U. S. Engineer Office, Vicksburg District, Vicksburg, Miss.—Sealed proposals will be received here until 12 m., June 15, 1915, and then opened, for furnishing steel lock gates, valves, Poiree trestles, operating machinery, etc., aggregating about 450,000 pounds. Further information on application.

U. S. ENGINEER OFFICE, Cincinnati, O., May 26, 1915.—Sealed proposals for building a Power House at Dam No. 29, Ohio River, near Ashland, Ky., will be received here until 2 p.m., June 15, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., May 19, 1915.—Sealed proposals for construction of concrete superstructure on north pier, Erie Harbor, Pa., will be received at this office until 11 a.m., June 19, 1915, and then publicly opened. Information on application. L. V. FRAZIER, Captain, Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., May 17, 1915. Sealed proposals for dredging in the harbor of refuge at Block Island, R. I., will be received here until 12 o'clock, noon, June 16, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Newport, R. I., May 12, 1915.—Sealed proposals for rebuilding wharves and building new sea wall and coal house, at U. S. Bureau of Fisheries Station at Woods Hole, Mass., will be received here until 12 o'clock, noon, June 12, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL AND CIVIL GRADUATE, water-supply and sewage disposal; private estates, institutions and towns; five years' experience on examination, design and construction. P. W. 290, Eng. News.

MECHANICAL ENGINEER, Columbia graduate, some outside experience, desires position in engineering or manufacturing line offering opportunities. Location and salary immaterial. P. W. 314, Eng. News.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

GRADUATE CIVIL ENGINEER, wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 265, Eng. News.

CIVIL ENGINEER, Assoc. M. Am. Soc. C. E. desires position; 8 years' experience on the design of foundations and reinforced concrete bridges and buildings. Expert computer of arch stresses. P. W. 264, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; 12 years continuous charge of engineering and construction work, mostly railroad; reinforced concrete a specialty; designing, estimating, etc.; experience in municipal work; executive ability; legal training; business education; references; moderate salary; just finished some work in Canada and available at any time for any location. For list of special training and experience. P. W. 260, Eng. News, Chicago.

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, technical graduate, Member Am. Soc. C. E.; 16 years' experience in construction and design especially waterworks and highways; speaks and writes Spanish; free after June 1. P. W. 267, Eng. News.

CIVIL ENGINEER, graduate, 14 years' practical experience; water-works and municipal consulting engineering; design and construction, earth, masonry, concrete and steel; investigations, reports, appraisals, fire protection; excellent references. P. W. 275, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

FIELD ENGINEER, eight years' experience on railroads, state highways, irrigation and municipal work, desires position anywhere, either location, construction or municipal work. P. W. 294, Eng. News.

GRADUATE CIVIL ENGINEER, 32, eight years' varied experience, construction and surveying, desires position with engineer, contractor or industrial company in vicinity of New York; moderate salary; have instruments. P. W. 310, Eng. News.

GRADUATE CIVIL ENGINEER, 13 years' experience in all classes of steel structures, bridges and subways; shop drawings, estimating and designing, past 10 years with leading bridge company, desires change. P. W. 301, Eng. News.

GRADUATE ENGINEER wishes position with engineer or contractor; two years' estimating construction experience. P. W. 302, Eng. News.

CONSTRUCTION CIVIL ENGINEER; six years' practical experience as erector on steel and industrial plant work, buildings, furnaces, machinery, steel, brick, concrete and excavation wants to make change. Will consider sales force, no experience. P. W. 309, Eng. News.

CIVIL ENGINEER, graduate with high reference, twenty years' experience surveys, design, construction, railways, bridges, tunnels, foundations and hydraulic works open to engagement. P. W. 307, Eng. News.

GRADUATE CIVIL ENGINEER desires position; location immaterial; salary secondary consideration. P. W. 312, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, graduate, 10 years' experience, designing, detailing bridges, industrial plants, filtration, hydro-electric power. P. W. 285, Eng. News, Chicago.

Draftsmen

TOPOGRAPHIC AND RAILROAD DRAFTSMAN, 30, experienced technical graduate, neat, rapid letterer, Reinhardt's style; permanent, responsible position only. P. W. 221, Eng. News, Chicago.

ENGINEER AND DRAFTSMAN, technical graduate, seven years' experience, field and office, drainage and irrigation work; A-1 letterer, Reinhardt's style; samples. P. W. 216, Eng. News.

FIRST CLASS DRAFTSMAN and designer, cranes, hoisting engines, shovel work, temporary or permanent. P. W. 287, Eng. News.

LADY desires position as draftsman in engineer's office; salary moderate; location anywhere. P. W. 308, Eng. News, Chicago.

Superintendents, Etc.

ESTIMATOR, building construction, reliable and quick in quantities, over 10 years' experience, good draftsman, can prepare details on wood and steel, etc., specialist in reinforced concrete, graduated civil engineer, 34, married, wants position; moderate salary. P. W. 253, Eng. News.

SUBMARINE DIVER, 12 years' experience in bridge work, coffer-dams and general under-water repairs seeks position with reliable contracting firm, permanent or temporary employment. P. W. 276, Eng. News.

GENERAL CONTRACTOR'S ENGINEER and estimator on all trades entering into every class of construction, mostly successful, desires permanent position. P. W. 280, Eng. News.

A FIRST CLASS STEAM SHOVEL ENGINEER and master mechanic or walking boss; with 28 years' experience, with all classes of shovels and locomotives can furnish best of references, locality immaterial. P. W. 286, Eng. News.

ENGINEER familiar with the work of planning shops and factories and with the design of structures and machinery desires engagement. P. W. 311, Eng. News.

SALES REPRESENTATIVE, employed, 15 years' experience hoisting and excavating machinery, wants to connect with growing concern, any good line; Middle West preferred. P. W. 300, Eng. News, Chicago.

SUPERINTENDENT; nine years reinforced concrete building construction, good organizer, location immaterial, references. Now employed. P. W. 306, Eng. News.

WANTED TO REPRESENT MANUFACTURER in New York territory, by man well acquainted with the pump and power-plant field; several years successfully representing a prominent firm. Address A, Room 322-E, 30 Church St., New York City.

POSITIONS OPEN

COMPETENT and experienced structural designer and estimator required for mill building work to take permanent position in Havana, Cuba, with manufacturing company. State experience, references and salary. P. 262, Eng. News.

SHOP FOREMAN by a large steel fabricating plant in the Middle West. State experience and salary expected. P. 282, Eng. News, Chicago.

FIRST CLASS FOREMAN for structural steel shop one thousand tons capacity in Havana City, Cuba, must be fully experienced in all departments of shops active and competent to handle Spanish speaking labor permanent position for right man give references, experience and salary expected. P. 288, Eng. News.

BRIGHT YOUNG MAN wanted to act as assistant to the manager of a large suburban real estate company; must have pleasing personality and be familiar with bookkeeping and office methods and have knowledge of buildings and management of tenants; a slight knowledge of surveying and construction work desirable; excellent future for right man; state age, salary expected, etc. P. 303, Eng. News.

ENGINEER WANTED by a large manufacturing concern; must be a college graduate with some experience in handling men; mechanical training preferred but not essential; excellent opportunity for advancement. In reply state age, college, degree and salary expected. P. 304, Eng. News.

FIELD INSTRUCTOR in surveying wanted for month of June; New York district; salary $100. P. 313, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

LABORERS—Immigrants of any nationalities supplied at short notice at any part of the United States; camps and commissary runner; promptness and systems are our success. People's Labor Agency, 88 Baxter St., New York.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

WANTED ENGINEERING REPRESENTATIVES for Southern and Central States to represent the Thomas method of reinforced-concrete bridge construction. William M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

MECHANICAL SALESMAN now covering New York, New Jersey, Pennsylvania, wants negotiations; exclusive or side. W. 271, Eng. News.

SALES ENGINEER with established office would like to represent reputable manufacturer, Chicago and vicinity. W. 289, Eng. News, Chicago.

BUSINESS OPPORTUNITIES

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

SUPERINTENDENT wanted by established general contracting company having large amount of work in hand; must be experienced in brick paving, with $3000 to $5000 to invest in new work; only gilt-edge security. Box 53, Hotel Haning, Cincinnati, Ohio.

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of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.

Two separate courses are offered, under the following designations,—

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These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 180, Engineering News

TWO LETTERS

Of special interest to City Engineers and other advertisers of contracts to be let.

CITY OF CUMBERLAND
Maryland

Office of
James P. Gaffney
City Engineer

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T. W. Koon, M. D. Mayor
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Joseph S. Schriver

April 3, 1915.

Engineering News, Hill Publishing Co.,
Tenth Avenue at Thirty-sixth St.,
New York, N. Y.

Gentlemen:

Enclosed you will find copy of advertisement which we wish to have inserted once in ENGINEERING NEWS, next issue.

We are well pleased with the result of our advertisement for bids on street pavement which we had inserted twice recently; over thirty-five prospective bidders have already applied for plans and specifications, many more than we anticipated.

Yours very truly,
(signed) James P. Gaffney,
City Engineer.

BOROUGH OF SHARON
Office of the Secretary

Claude B. Lartz, Secretary
Willsonia Building

Sharon, Pa., *April* 12, 1915.

Engineering News, New York City,

Gentlemen:

Allow me to express the appreciation of Sharon Council for the efficiency of your publication in securing bids. It has proven the best advertising medium I have found after an experience with the leading publications and I can assure you that any additional ads to be placed during my term in office will find their way to you.

I might mention in the asking for bids on a road roller, concrete mixer and heating kettles, I received 84 replies with bids. The large number of bids was a big surprise to Council.

Respectfully yours,
(signed) Claude B. Lartz,
Secretary.

For Sale
Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
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GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
TITAN Equipment Co., 30 Church St., N. Y. (Cort. 1111.)
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

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1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

8x8" Gardner with receiver and gasoline engine on trucks. —GRIMSHAW.

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1—14" and 1—16" 50' centers.—GIVIN.

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5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed.—GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CARS

[Standard Gauge]

Flat car with derrick, 30' boom and bull wheel. House for machinery.—GRIMSHAW.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

12 Koppel 1¼ yd., steel V shape.—GRIMSHAW.

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Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Sturtevant, in perfect condition, used but 10 days; will sell cheap.—ARTHUR L. BATES, Meadville, Pa.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

125' boom, 35 ton cap. steel stiff leg with bull wheel; 4-section boom; removal mid-section adds capacity. Mast 75', sills 58', stiff legs spread 68'. High grade for yard or erecting work. Quick sale price.—TITAN.

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Hydraulic and dipper. Sale or charter.—GIVIN.

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For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

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1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

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2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

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2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

7¼x10" Lambert 3 drum, swinger and boiler; overhauled, $700.—GRIMSHAW.

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[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

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1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

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4 or 8 wheel 5 to 40 ton capacities.—TITAN.

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Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

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1 Cameron 3½x2x4 Steam pump.—SAMPSON.

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1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

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40 ton of 35 lb. with fish plates.—PIPE.

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2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1 Tandem paving roller in excellent condition. Low price for quick sale. Write F. S. 296, Eng. News.

1—8 ton Austin gasoline, perfect condition, rare bargain.—B. G. COON CONSTRUCTION CO., 274 Union St., Luzerne, Pa.

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Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

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50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

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To buy at once Wagonhorst blueprinting machine, double cylinder 42"x72".—ALAMO BLUE PRINT CO., Swearingen-McCraw Bldg., San Antonio, Texas.

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Air Compressors	Electric Locomotives	Pipe
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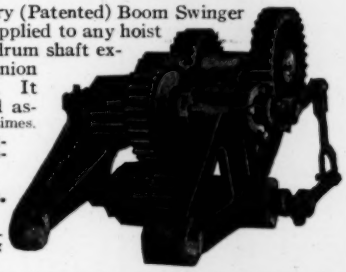

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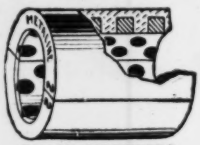

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